Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-21 (Cancelled)

22. (Currently amended) A catalyst ~~according to claim 13~~ for use in the production of ethylene oxide, obtained by depositing a silver-containing catalytic component on a carrier obtained by adding an aluminum compound, a silicon compound, and an alkali metal compound to a low-alkali content α-alumina powder having an alkali metal content in the range of 1-70 m.mols/kg of powder and calcining the resultant mixture, the aluminum compound content as reduced to aluminum being in the range of 0-3 mols/kg of carrier, the silicon compound content as reduced to silicon in the range of 0.01-2 mols/kg of carrier, and the alkali metal content as reduced to alkali metal in the range of 0.01-2 mols/kg of carrier respectively in said carrier, wherein the secondary particle average particle diameter of said α-alumina is in the range of 50-100 μm of powder.

23. (Currently amended) A catalyst ~~according to claim 13~~ for use in the production of ethylene oxide, obtained by depositing a silver-containing catalytic component on a carrier obtained by adding an aluminum compound, a silicon compound, and an alkali metal compound to a low-alkali content α-alumina powder having an alkali metal content in the range of 1-70 m.mols/kg of powder and calcining the resultant mixture, the aluminum compound content as reduced to aluminum being in the range of 0-3 mols/kg of carrier, the silicon compound content as reduced to silicon in the range of 0.01-2 mols/kg of carrier, and the alkali metal content as reduced to alkali metal in the range of 0.01-2 mols/kg of carrier respectively in said carrier, wherein the BET specific surface area of said α-alumina is in the range of 1-4 m^2/g.

24. (Canceled)

25. (New) The catalyst according to claim 22, wherein said silicon compound content is in the range of 0.01-1 mol/kg calculated as silicon.

26. (New) The catalyst according to claim 22, wherein the amount of silver deposited is in the range of 1-30 wt.% based on the weight of said catalyst.

27. (New) The catalyst according to claim 26, wherein an alkali metal is deposited as a reaction promoting agent in an amount in the range of 0.001-2 wt.%, based on the weight of the catalyst.

28. (New) The catalyst according to claim 27, wherein said alkali metal is cesium or rubidium.

29. (New) The catalyst according to claim 22, wherein the atomic ratio of said alkali metal content in said powder/said alkali metal content in said carrier is in the range of 0.0001-0.8.

30. (New) The catalyst according to claim 22, wherein said alkali metal content in said α-alumina is in the range of 3-30 m.mol/kg of powder.

31. (New) The catalyst according to claim 22, wherein said aluminum compound content as reduced to aluminum is in the range of 0.01-2 mols/kg of carrier and said alkali metal compound content in the range of 0.02-0.5 mol/kg of carrier in said carrier.

32. (New) The catalyst according to claim 23, wherein said silicon compound content is in the range of 0.01-1 mol/kg calculated as silicon.

33. (New) The catalyst according to claim 23, wherein the amount of silver deposited is in the range of 1-30 wt.% based on the weight of said catalyst.

34. (New) The catalyst according to claim 33, wherein an alkali metal is deposited as a reaction promoting agent in an amount in the range of 0.001-2 wt.%, based on the weight of the catalyst.

35. (New) The catalyst according to claim 34, wherein said alkali metal is cesium or rubidium.

36. (New) The catalyst according to claim 23, wherein the atomic ratio of said alkali metal content in said powder/said alkali metal content in said carrier is in the range of 0.0001-0.8.

37. (New) The catalyst according to claim 23, wherein said alkali metal content in said α-alumina is in the range of 3-30 m.mol/kg of powder.

38. (New) The catalyst according to claim 23, wherein said aluminum compound content as reduced to aluminum is in the range of 0.01-2 mols/kg of carrier and said alkali metal compound content in the range of 0.02-0.5 mol/kg of carrier in said carrier.